Magnetic Stripe Reader-Writer

RS232 & USB-RS232 Interface

Quickstart Manual

ID TECH
10721 Walker Street
Cypress, California 90630
(714) 761-6368
www.idtechproducts.com

80058504-002 Rev. C R01/08

IDTECH®
Value through Innovation

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TROUBLE SHOOTING

Refer to the installation instructions for Reader-Writer and for Workshop troubling shooting information. The RS232 or USB-RS232 operation has little Windows setup; however, review of the communication parameters may be necessary to insure the correct baud rate, parity, etc.

MODEL NUMBER TABLE

The models of the Magnetic Stripe Reader-Writer are available from ID TECH:

IDWA-332312	RS-232, Track 1 & 2	Hi/Lo Coercivity, Metal housing
IDWA-332333	RS-232, Track 1, 2 & 3	Hi/Lo Coercivity, Metal housing
IDWA-336312	USB, Track 1 & 2	Hi/Lo Coercivity, Metal housing
IDWA-336333	USB, Track 1, 2 & 3	Hi/Lo Coercivity, Metal housing
IDWA-332112B	RS-232, Track 1 & 2	Lo Coercivity, Molded housing
IDWA-332133B	RS-232, Track 1, 2 & 3	Lo Coercivity, Molded housing
IDWA-336112B	USB, Track 1 & 2	Lo Coercivity, Molded housing
IDWA-336133B	USB, Track 1, 2 & 3	Lo Coercivity, Molded housing

FCC WARNING STATEMENT

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user is required to correct the interference at his expense.

FCC COMPLIANCE STATEMENT

This reader complies with Part 15 of the FCC Rules. Operation of this reader is subject to the following conditions: this reader may not cause harmful interference and this reader must accept any interference received, including interference that may cause undesired operation.

CE STANDARDS

An independent laboratory performed testing for compliance to CE requirements. The unit under test was found compliant to Class A.

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USB (Universal Serial Bus) Specification is Copyright by Compaq Computer Corporation, Intel Corporation, Microsoft Corporation, NEC Corporation. Windows, Excel, & Notepad are registered trademarks of Microsoft Corporation.

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LIMITED WARRANTY

ID TECH warrants to the original purchaser for a period of 12 months from the date of invoice that this product is in good working order and free from defects in material and workmanship under normal use and service. ID TECH's obligation under this warranty is limited to, at its option, replacing, repairing, or giving credit for any product which has, within the warranty period, been returned to the factory of origin, transportation charges and insurance prepaid, and which is, after examination, disclosed to ID TECH's satisfaction to be thus defective. The expense of removal and reinstallation of any item or items of equipment is not included in this warranty. No person, firm, or corporation is authorized to assume for ID TECH any other liabilities in connection with the sales of any product. In no event shall ID TECH be liable for any special, incidental or consequential damages to Purchaser or any third party caused by any defective item of equipment, whether that defect is warranted against or not. Purchaser's sole and exclusive remedy for defective equipment, which does not conform to the requirements of sales, is to have such equipment replaced or repaired by ID TECH. For limited warranty service during the warranty period, please contact ID TECH to obtain a Return Material Authorization (RMA) number & instructions for returning the product.

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MAINTENANCE

The Reader-Writer requires card slot cleaning on a regular interval. The interval is approximate and should be after every 10,000 card swipes. Regular cleaning insures oils and debris do not accumulate on the operating components.

Over time, operation can cause a film to collect on the heads and other surfaces. This film should be removed using "cleaning cards". These are available from magnetic stripe cleaning card sources. Cleaning cards are about the same size as an ID1 (credit card) and have an absorbent surface on one or both sides. The absorbent surface has an isopropyl alcohol solvent that should remove any film. The absorbent surface should be damp; the surface should not be saturated.

Swipe the card five to ten times with the solvent side of the card toward the read and write heads and then again five to ten times with the solvent side opposite the heads.

The cleaning cards may not remove all the debris. In the case of debris such as dust and card particles in the slot, use an aerosol can product having clean compressed air. The clean air is used to blow debris from the slot. Direct the stream of air at a low angle into the slot and run the nozzle along the slot. Direct the air in the direction of the card travel and then in the opposite direction. Inspect the slot by looking down its length with a good backlight to see if all debris are removed.

The housing can be cleaned with a mild detergent applied to a soft cloth that is rung almost dry. Detergent should not be allowed to enter the card slot. visit cleanteam.com for a source of cleaning supplies.

Warning: There are no serviceable components inside the Reader-Writer. Opening the Reader-Writer voids the warranty. Tampering with the write head or tachometer assemblies may change the Reader-Writer calibrations for ISO standards operation.

LIMITED WARRANTY

ID TECH warrants to the original purchaser for a period of 12 months from the date of invoice that this product is in good working order and free from defects in material and workmanship under normal use and service. ID TECH's obligation under this warranty is limited to, at its option, replacing, repairing, or giving credit for any product which has, within the warranty period, been returned to the factory of origin, transportation charges and insurance prepaid, and which is, after examination, disclosed to ID TECH's satisfaction to be thus defective. The expense of removal and reinstallation of any item or items of equipment is not included in this warranty. No person, firm, or corporation is authorized to assume for ID TECH any other liabilities in connection with the sales of any product. In no event shall ID TECH be liable for any special, incidental or consequential damages to Purchaser or any third party caused by any defective item of equipment, whether that defect is warranted against or not. Purchaser's sole and exclusive remedy for defective equipment, which does not conform to the requirements of sales, is to have such equipment replaced or repaired by ID TECH. For limited warranty service during the warranty period, please contact ID TECH to obtain a Return Material Authorization (RMA) number & instructions for returning the product.

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COMMUNICATION INTERFACE

The USB interface uses PC compatible communication drivers, which emulate a RS232 COM port operation through an USB serial connection. This approach allows the application to communicate with the reader through a virtual COM port. Drivers are required for USB to operation. See the Reader-Writer User Manual for more information on installing the drivers.

The RS232 interface is standard & needs no special installation steps, see the Reader-Writer user manual for more information

The units is supplied with a 6.0' cable with a 2.1 mm power Jack molded into a pigtail of the cable.

Interface

The communication parameters (port settings) are fixed.

The parameters are:

Baud rate:	9600
Data bits:	8
Parity:	None
Stop bit:	1

INTRODUCTION

The Magnetic Stripe Reader & Writer (Reader-Writer) is a personal computer peripheral device that reads and writes magnetic stripe cards that meet ISO 7811 standards for a typical credit card. Cards are manually swiped through the slot to perform a reading and/or writing operation. Data can be written and verified (read) with one swipe. The Reader-Writer is designed to support several magnetic stripe track formats defined by ISO Standard formats or by User (custom) data formats. All formats use ISO data bit encoding (writing) at either 210 or 75 bits per inch (BPI) data densities. The Reader-Writer can read both High coercivity and Low coercivity (Hi-Co & Lo-Co) magnetic stripes. Some models write Hi & Lo coercivity cards, other models write Lo coercivity cards only, see the model number table for writing capabilities.

The enclosure is a molded plastic or die cast housing that provides weight and stability for excellent performance. The communication interface is through an attached six-foot cable. A separate power adaptor is required for the Reader-Writer operation.

This document provides basic information. See detailed information & instructions provided in the User Manual on the Workshop CD.

Specifications & Performance

See the user manual for complete information

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1

UNPACK THE Reader-Writer

Open the shipping carton and inspect the contents for any shipping damage. Remove and account for the contents of the shipping carton. The carton will include:

- This Quick Start Manual
- MagStripe Reader – Writer Unit (Model number IDWA)
- CD, Workshop Software Application Utility
- Power Adaptor, 100-240VAC input, 24VDC @2.5A output
- One Hi-Co Sample & One Lo-Co Sample MagStripe Test Card or a single Lo-co sample MagStripe Test card

Remove the plastic wrapping materials from the Reader-Writer and Power Adaptor.

The User Manual is on the enclosed CD. The User Manual has information on the Reader-Writer and the Workshop software application. There is a Quick Start section in the User Manual, which is a guide to basic reading and writing operations.

Getting Started

Follow the information in the Reader-Writer-readme.TXT file on the CD to install the Reader-Writer and WorkShop software.

WORKSHOP UTILITY

The Reader-Writer and the Workshop software provide the card reading & writing functions most often needed for magnetic stripe use. These functions & operations are available from a single Workshop window. A summary of Workshop Utility functions:

Write	Writes data to a card in the Card Type format
Read	Reads card data and displays the data in Track boxes
Compare	Compares multiple cards to a single reference card
Erase	Erases the selected tracks of data on a card
Sequential Write	Writes both fixed and/or sequential data to a card
Write from File	Writes to each card the next record from a pre-formatted data file
Read to File	Reads a card & saves the card data as a record into a data file
Database Write	Writes cards from a database CSV file & Usage file
Card Type	Provides card format selection based on Setup menu or Standard
- ISO	Selects 7811 ISO Standard card format
- AAMVA	Selects AAMVA standard, based on ISO Standards
- USER	Selects the card format from settings in Setup USER tab
- RAW	Reads & writes data and displays in a Hexadecimal format
Setup	Provides selections & settings of “USER” or “RAW” formats
- Leading Zero	Sets number of leading zeros before the Start Sentinel
- BPI Setting	Selects individual track data density (75 or 210 bits/inch)
- Set Coercivity	Sets the writing coercivity to High or Low for all tracks
- Start Sentinel	Selects the Start Sentinel character for the individual tracks
- End Sentinel	Selects the End Sentinel character for the individual tracks
- Bits/Character	Selects the number of bits per character for individual tracks
- Parity	Selects character parity bit logic for individual tracks
- Default	Resets the parameters & settings to the standard norms

* Hi-co selection does not apply to a Lo-co only unit

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